Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Claims 1-97 (cancelled).

98. (new) An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -51 to about 360 in SEQ ID NO:2;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about -50 to about 360 in SEQ ID NO:2;

(c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 360 in SEQ ID NO:2;

(d) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(e) a nucleotide sequence encoding the mature DR5 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(f) a nucleotide sequence encoding the DR5 extracellular domain;

(g) a nucleotide sequence encoding the DR5 transmembrane domain;

(h) a nucleotide sequence encoding the DR5 intracellular domain;

(i) a nucleotide sequence encoding the DR5 death domain; and

(j) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), (g), (h), or (i) above.

99. (new) The nucleic acid molecule of claim 98, comprising the nucleotide sequence in SEQ ID NO:1.

100. (new) An isolated nucleic acid molecule comprising a polynucleotide sequence which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to the nucleotide sequence in (a), (b), (c), (d), (e), (f), (g), (h), (i), or (j) of claim 98, wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only adenosine nucleotides or of only thymidine nucleotides.

101. (new) An isolated nucleic acid molecule comprising a polynucleotide which encodes the amino acid sequence of an epitope-bearing portion of a DR5 polypeptide having an amino acid sequence in (a), (b), (c), (d), (e), (f), (g), (h), or (i) of claim 98.

102. (new) The isolated nucleic acid molecule of claim 101, which encodes an epitope-bearing portion of a DR5 polypeptide selected from the group consisting of: a polypeptide comprising amino acids from about 11 to about 59 in SEQ ID NO:2; a

polypeptide comprising amino acids from about 68 to about 113 in SEQ ID NO:2; a polypeptide comprising amino acids from about 173 to about 220 in SEQ ID NO:2; and a polypeptide comprising amino acids from about 224 to about 319 in SEQ ID NO:2.

103. (new) A method for making a recombinant vector comprising inserting the nucleic acid molecule of claim 98 into a vector.

104. (new) A method of making a recombinant host cell comprising introducing the isolated nucleic acid molecule of claim 98 into a host cell.

105. (new) A method for producing a DR5 polypeptide, comprising culturing the recombinant host cell produced by the method of claim 104 under conditions such that said polypeptide is expressed, and recovering said polypeptide.

106. (new) An isolated DR5 polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(a) amino acids from about -51 to about 360 in SEQ ID NO:2;

(b) amino acids from about -50 to about 360 in SEQ ID NO:2;

(c) amino acids from about 1 to about 360 in SEQ ID NO:2;

(d) the amino acid sequence of the DR5 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(e) the amino acid sequence of the mature DR5 polypeptide having the amino acid encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(f) the amino acid sequence of the DR5 extracellular domain;

(g) the amino acid sequence of the DR5 transmembrane domain;

(h) the amino acid sequence of the DR5 intracellular domain;

(i) the amino acid sequence of the DR5 death domain; and

(j) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), (e), (f), (g), (h), or (i).

107. (new) An isolated polypeptide comprising an epitope-bearing portion of the DR5 protein, wherein said portion is selected from the group consisting of: a polypeptide comprising amino acids from about 11 to about 59 in SEQ ID NO:2; a polypeptide comprising amino acids from about 68 to about 113 in SEQ ID NO:2; a polypeptide comprising amino acids from about 173 to about 220 in SEQ ID NO:2; and a polypeptide comprising amino acids from about 224 to about 319 in SEQ ID NO:2.

108. (new) A pharmaceutical composition comprising the polypeptide of claim 106 and a pharmaceutically acceptable carrier.

109. (new) A fusion protein comprising the polypeptide of claim 106 fused to a heterologous polypeptide.

110. (new) An isolated antibody or fragment thereof that binds specifically to a DR5 polypeptide consisting essentially of a sequence selected from the group consisting of:

(a) amino acids from about -51 to about 360 in SEQ ID NO:2;

(b) amino acids from about -50 to about 360 in SEQ ID NO:2;

(c) amino acids from about 1 to about 360 in SEQ ID NO:2;

(d) the amino acid sequence of the DR5 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(e) the amino acid sequence of the mature DR5 polypeptide having the amino acid encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(f) the amino acid sequence of the DR5 extracellular domain;

(g) the amino acid sequence of the DR5 transmembrane domain;

(h) the amino acid sequence of the DR5 intracellular domain;

(i) the amino acid sequence of the DR5 death domain; and

(j) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), (e), (f), (g), (h) or (i).

111. (new) The antibody or fragment thereof of claim 110 which is selected from the group consisting of:

(a) a polyclonal antibody;

(b) a monoclonal antibody;

(c) an $F(ab')_2$ fragment; and

(d) an Fab fragment.

112. (new) An isolated cell that produces the antibody or fragment thereof of claim 110.

113. (new) A pharmaceutical composition comprising the antibody or fragment thereof of claim 110 and a pharmaceutically acceptable carrier.

114. (new) An isolated antibody or fragment thereof which is an agonist of a DR5 polypeptide consisting essentially of a sequence selected from the group consisting of:

(a) amino acids from about -51 to about 360 in SEQ ID NO:2;

(b) amino acids from about -50 to about 360 in SEQ ID NO:2;

(c) amino acids from about 1 to about 360 in SEQ ID NO:2;

(d) the amino acid sequence of the DR5 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(e) the amino acid sequence of the mature DR5 polypeptide having the amino acid encoded by the cDNA clone contained in ATCC Deposit No. 97920;

(f) the amino acid sequence of the DR5 extracellular domain; and

(g) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), (e) or (f).

115. (new) The antibody or fragment thereof of claim 114 which is selected from the group consisting of:

(a) a polyclonal antibody;

(b) a monoclonal antibody;

(c) an $F(ab')_2$ fragment; and

(d) an Fab fragment.

116. (new) An isolated cell that produces the antibody or fragment thereof of claim 114.

117. (new) A pharmaceutical composition comprising the antibody or fragment thereof of claim 114 and a pharmaceutically acceptable carrier.

118. (new) An isolated antibody or fragment thereof capable of binding to a DR5 protein expressed on the surface of a cell comprising the human cDNA contained in ATCC Deposit No. 97920 operably associated with a regulatory sequence that controls the expression of said polynucleotide.

119. (new) An isolated antibody or fragment thereof capable of binding to a DR5 protein expressed on the surface of a cell comprising the human cDNA contained in ATCC Deposit No. 97920 operably associated with a regulatory sequence that controls the expression of said polynucleotide, wherein said antibody or fragment thereof is an agonist of said DR5 protein.